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## **SILK AS A LUXURY IN LATE MEDIEVAL AND EARLY MODERN TARTU (ESTONIA)**

Thanks to favourable preservation conditions, thousands of textile fragments dating from the medieval and modern era have been found in Tartu cesspits. These fragments mostly originate from fabrics made of wool; silk finds are rare (0.6% of finds). Medieval and early modern sumptuary laws are a valuable source for evaluating attitudes to silk in comparison to archaeological evidence. Pieces of silk fabrics, bands and sewing threads, which could be characterised as rather modest, are nonetheless important when investigating consumption habits in a middle-sized Hanseatic town in medieval Livonia. Wearing silk in Tartu during this period can be regarded as a sign of luxury consumption, self-expression and social display.

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### **Introduction**

Silk has always attracted human beings due to its aesthetic and exotic nature. In late medieval Europe, silk was probably the most expensive fabric and certainly a luxury item with high social value (e.g. Walton Rogers 2002, 2884; Muthesius 2003, 325; Munro 2009, 2). I believe that silk items belong to the most impressive and famous examples of textiles throughout history, because they have attracted attention for aesthetic reasons, complexity of production, and input of human effort. In late medieval Europe enormous varieties of silk fabrics were available, but only a small fraction were masterpieces worn by members of royal families or high status ecclesiastics. During field work much simpler scraps of silk have been found by archaeologists in deposits related to the everyday life of urban communities and ‘ordinary’ people. The present paper focuses on silk finds from medieval cesspits in Tartu, then a Hanseatic town in Livonia. The main aim is to give an overview of the nature of these ‘simple’ silks and how they were used by the inhabitants of a late medieval town. Questions regarding the affordability, social value and meaning of silk to the inhabitants of a medieval town will be addressed.

The history of silk in Estonia begins with three brocaded bands and a fabric fragment found in a craft box at Lõhavere hill fort that date to the beginning of the 13th century, i.e. the end of prehistoric times according to Estonian chronology (Peéts 1985; Laul & Tamla 2014, 48 f.). Only during the Middle Ages (ca 1225–1558 AD) did an extensive cloth trade begin – mediated by Hanseatic merchants – with imported fabrics from Western Europe becoming an important part of consumption habits in Livonian Hanseatic towns (e.g. Tartu, Tallinn and Pärnu; Rammo 2010; 2015). Silk textiles were brought to Livonia along with many other traded goods. In written sources that relate to these Livonian towns, various sorts of silk have been mentioned: *Syde*, *Floele*, *Damascken*, *Cammeloth*, *Zindeldort*, *Zendeling*, *Zindel* (*silberne oder goldene*), *Grobgrün*, *Grosgrain*, *Taft*, *Sammet*, *Atlassene*, *Stamete* and *Goldtborden Muzen* (Pabst 1857, 202; Hansen 1894, 21 ff.; Mickwitz 1938, 58; Khoroshkevich 1958, 241; Põltsam 2002, 26). Among those listed here, cheaper silks woven on a treadle loom included tabbies such as taffeta (*Taft*) and cendal (*Zindel*), plain samite (*Stamete*), and satin (*Atlassene*) (Monnas 2008, 297). More complex and thus expensive weaves were made using a draw loom; these were damask (*Damascken*), lampas and figured silks, some of them with brocaded metal threads (*ibid.*). On the basis of archaeological evidence silk yarn was also traded.

Until the end of the 12th and beginning of the 13th century, silk was mostly brought to Europe from the Byzantine Empire and Islamic countries of the Mediterranean area. During the 12th century the secret of silk production spread to Italy and from the 13th–16th centuries Italy and Spain (e.g. Lucca, Venice and Bologna) were the dominant suppliers in Western European markets (Spies 2000, 78; Muthesius 2003, 325; Monnas 2008, 5), from which silk reached Livonian towns. For example, Hanseatic merchants bought Lucchesian silk in the markets and cloth halls of London and Bruges (Muthesius 2003, 335; Monnas 2008, 8). During the Late Middle Ages silk was also occasionally traded via Novgorod, i.e. from East to West (Khoroshkevich 1958, 241). By the 14th century an enormous variety of silk fabrics were available in European markets, from plain taffetas to luxuriant velvets and glossy satins, as well as heavy fabrics brocaded with gold or silver (Monnas 2008, 4).

### Silk as a luxury

The definition of ‘luxury’ depends on the temporal and spatial context. In a medieval town, luxury cannot be regarded simply in contrast to necessities, but it was something mostly used as an incarnated sign (Appadurai 1986, 38). Arjun Appadurai suggests regarding luxury as a special ‘register’ of consumption and not as a special class of things (*ibid.*). Consumption in material culture studies and historical archaeology is understood as a social practice through which people simultaneously construct understandings of self and their position in the world (e.g. Miller 1987; Scarlett 2002; Mullins 2004, 197; Dietler 2010, 226). Thus,

we should speak about agency and not so much about the things themselves. Nevertheless, I agree with Daniel Miller that when dealing with archaeological finds – in this case textiles – it is impossible to interpret artefacts without a thorough study of their physical properties (Miller 1987, 98 f.). This approach gives equal stress on both aspects of research – the artefacts and the past human agency. Appadurai (1986, 38) lists five qualities characteristic of luxury consumption: 1) restriction; 2) complexity of acquisition; 3) capacity to signal complex social messages; 4) special knowledge for consumption; 5) linkage to the body, person and personality. In the following sections these qualities regarding silk consumption in medieval Livonia are discussed.

The consumption of silk was restricted both by its price and the sumptuary laws of medieval Livonia. It was definitely the most expensive textile available. Written sources illustrate this statement well: among the clothing items listed in the tailors' charter for Riga in 1492, a doublet made of silk and two gowns with silk sleeves were the most expensive products (Stieda & Mettig 1896, 482 ff.); in the year 1536 the countess of Hoya died in Tallinn and her silk dress was probably the most expensive clothing item in medieval Livonia at the time (Pöhltsam 2002, 24). In comparison to woollen fabrics, silk was imported to northern towns in relatively small quantities. Although sometimes measured by piece, in commercial documents it was more common to measure mass units such as *lode* (ca 13 grams; Jahnke 2004, 505) or pounds (Khoroshkevich 1958, 241). In 13th century Bergen silk yarn was sold in pounds (428.64 g) (Hansen 2015, 93).

Throughout Europe, even those people who could afford to wear silk were, in theory, restrained by sumptuary laws – thus silk was a badge of status (Monnas 2008, 1 f.). In the sumptuary laws of Livonian towns there was one constantly repeated requirement regarding the fabric used for clothing: wearing garments or adornments made of silk were prohibited or restricted (e.g. Pabst 1857, 202). The restrictions became more detailed towards the end of the 16th century when a wider part of the community was allowed to wear some cheaper sorts of silks and accessories made of silk. Some fabrics, such as velvet and silk, remained exclusive in the 17th century and were only allowed for a strictly limited circle of people or in very small amounts (Pajur 2014, 57). Considering the characteristics of luxury consumption, it is clear that silk was restricted and rather 'scarce', thus there was a certain 'complexity of acquisition' related to silk consumption.

One's dress – both next to the body and visible to others – is a powerful means of communication to demonstrate social status, aspirations, personality and taste. In the medieval world it mattered whether your clothing was made of wool or silk, and precisely what grade of silk as well as the expense and appropriateness of the colour (Monnas 2008, 2). The fact that some sumptuary law clauses had to be repeated several times indicates that these laws did not work in practice. The inhabitants of medieval towns desired silk not because of its practicality, but because of its aesthetic value and use for carrying social messages. Hence, in silk consumption capacity to signal complex social messages can be seen.

### Archaeological and written sources

The majority of medieval textile finds in Tartu have been unearthed from cesspits (about these cesspits, see e.g. Haak & Russow 2012). I have catalogued 3484 textile scraps from 15 medieval and early modern cesspits from 13 sites (e.g. Rammo 2009; 2010; 2012; 2015). None of the cesspits were located at a site connected with aristocratic or ecclesiastic elites; all finds were from the ‘ordinary town area’ of medieval Tartu. Silk finds were discovered in 13 cesspits from eight sites (Table 1). The preservation conditions in cesspits are favourable for protein-based fibres, which includes both wool and silk. The number of silk fabrics is not numerous (0.6%), especially in comparison with those of wool (99.3%)<sup>1</sup>. The main method for studying these silk fragments was basic technical analysis (e.g. Walton & Eastwood 1983). Important tools during the research process were microscopes (Nikon Eclipse S200 and Olympus BX51), which were used to ascertain fibres and details of fabric. In addition, an X-ray Fluorescence spectrometer (XRF) was used for elemental analysis of metal threads (Table 2). Regrettably, no analyses of the dyes used on any of the silk fragments have yet been carried out.

Over the centuries under study, silk gradually became available to the lower ranks of society (Piponnier & Mane 2007, 21; Monnas 2008, 29). This trend can also be seen from archaeological evidence. The earliest finds in Tartu were found in a cesspit at 3 Lossi Street; according to the imported ceramic and glass

**Table 1.** Silk finds from medieval and early modern cesspits in Tartu

|    | Site                | Code      | Date      | Items/<br>fabrics | Ribbons/<br>braids | Sewing<br>threads | Striped<br>textiles | In<br>total |
|----|---------------------|-----------|-----------|-------------------|--------------------|-------------------|---------------------|-------------|
| 1  | 3 Lossi St.: 2      | LOSS2     | 1350–1450 | 3                 | 1                  | 3                 | 0                   | 7           |
| 2  | 3 Lossi St.: 3      | LOSS3     | 1300–1400 | 1                 | 1                  | 1                 | 0                   | 3           |
| 3  | 15 Ülikooli St.: 1b | 15ÜLIK1b  | 1350–1500 | 0                 | 3                  | 10                | 1                   | 14          |
| 4  | 12 Munga St.: 1     | HTG1      | 1350–1550 | 3                 | 0                  | 2                 | 0                   | 5           |
| 5  | 12 Munga St.: 5     | HTG5      | 1350–1550 | 0                 | 0                  | 1                 | 0                   | 1           |
| 6  | 12 Munga St.: 7     | HTG7      | 1300–1500 | 0                 | 0                  | 10                | 4                   | 14          |
| 7  | 15 Rütli St.: 1     | RÜÜTLI    | 1400–1500 | 1                 | 0                  | 0                 | 0                   | 1           |
| 8  | 14 Ülikooli St.: N  | 14ÜLIK: N | 1400–1550 | 1                 | 0                  | 0                 | 0                   | 1           |
| 9  | 14 Ülikooli St.: Q  | 14ÜLIK: Q | 1375–1550 | 0                 | 3                  | 0                 | 0                   | 3           |
| 10 | 14 Ülikooli St.: S  | 14ÜLIK: S | 1550–1700 | 1                 | 2                  | 2                 | 0                   | 5           |
| 11 | 1 Kүүtri St.        | KÜÜTRI    | 1500–1550 | 1                 | 3                  | 0                 | 0                   | 4           |
| 12 | Kүүni St.           | KÜÜNI     | 1400–1500 | 1                 | 0                  | 0                 | 0                   | 1           |
| 13 | 11 Ülikooli St.: 6  | 11ÜLIK6   | 1400–1500 | 1                 | 0                  | 0                 | 0                   | 1           |
| 14 | 11 Ülikooli St.:    | 11ÜLIK    | 1400–1500 | 2                 | 0                  | 0                 | 0                   | 2           |
|    | IV plot             |           |           |                   |                    |                   |                     |             |
|    | In total            |           | 1300–1700 | 15                | 13                 | 29                | 5                   | 62          |

<sup>1</sup> Linen fragments constitute the remaining 0.1%.

**Table 2.** Description of metal threads in textiles found in Tartu. Elemental analysis was made using a Bruker Tracer III-SD XRF (40 kV; 10.7  $\mu$ A; 300 s; 12mil Al + 1mil Ti filter). High (60–100%), medium (30–60%), low (10–30%) and very low (1–10%) detection

|   | Site      | Cat. No.         | Description  | Metal thread                           | Core        | Composition   |
|---|-----------|------------------|--|--|-------------|---|
| 1 | 14ÜLIK: N | TM A-133: 4320   | Reddish lampas cloth (278 × 60 mm) embroidered with metal thread | Metal strip (S; 0.4 mm)                | Silk        | High detection of Ag, very low detection of Cu and Au.                  |
| 2 | 14ÜLIK: S | TM A-133: 4367/1 | Brocaded lampas cloth  | Organic metal-coated strip (Z; 0.5 mm) | Plant-fibre | Low detection of Ag, very low detection of Cu and Zn.                   |
| 3 | 11ÜLIK    | TM A-45          | 2/1 transparent twill (350 × 175 mm) with bands of metal thread  | Metal strip (S; 0.2 mm)                | Silk        | Medium detection of Ag and very low detection of Cu and Au.             |
| 4 | Cathedral | TM A-172: 231a   | Ribbon with brocaded warp  | Metal strip (S; 0.2 mm)                | Silk        | High detection of Ag and very low detection of Au and Cu.               |
| 5 | Cathedral | TM A-207: 71     | Tablet-woven band with brocaded weft                             | Metal strip (S; 0.2 mm)                | Silk        | High detection of Ag, low detection of Au and very low detection of Cu. |
| 6 | Cathedral | TM A-207: 73     | Tablet-woven band with brocaded weft                             | Metal strip (S; 0.2 mm)                | Silk        | High detection of Ag and very low detection of gold and Cu.             |
| 7 | Cathedral | TM A-207: 74     | Silk textile with metal thread                                   | Metal strip (S; 0.2 mm)                | Silk        | High detection of Ag and very low detection of Au and Cu.               |

beakers from the same context, the silk dates to the 14th century. The number of silk finds increases chronologically – most of those dealt with in this article date from the 15th–16th centuries. This coincided with the growth in silk manufacture in Southern Europe and the increased availability of lower grade silks in Northern Europe.

Written sources regarding medieval Livonia are more numerous for the 15th and 16th centuries and it is from this period that the first sumptuary legislations are known. Sumptuary laws mainly regulated the amount of jewellery and accessories women were allowed to wear according to their wealth and tax payments (e.g. Pöhltsam 2002, 41; Pritchard 2010, 131; Schultz 1892, 333 ff.). Such legislations in Livonian towns during the 15th–16th centuries are not very detailed and information about cloth types, clothing items or manner of dress is relatively scant. In the present article two sumptuary laws from Tallinn (15th century and from 1524), two from Riga (1502 and 1598) and one concerning Courland (1591) have been used for comparison with archaeological finds (Pabst 1857, 202 ff.; Hansen 1894, 17 ff.). Those from the end of the 16th century from Courland and Riga are much more detailed and such thoroughness continues in the regulations of the 17th century (e.g. Pajur 2014).

### Silk finds in Tartu

How did this luxury fabric look like in medieval Tartu and how was it used? Among the archaeological finds from cesspits, altogether 62 silk finds have been ascertained (Table 1): seven fragments of cloth, six ribbons, three brocaded pieces and five remnants of dress accessories or clothing items. In addition, 25 cases of silk thread used for sewing and embroidery, and 11 cases of loose threads or braids have been found. Sometimes silk yarns were woven into woollen cloth as part of decorative bands (five fragments; Rammo 2015). While the numerous wool scraps from the cesspits constitute a relatively homogeneous group, the silks are of various types.

#### *Dress accessories and remnants of clothes*

There are only a few examples of textile remnants found in Tartu that could be interpreted as originating from a certain item: a tiny pouch with red tassel (Fig. 1), a fragment of a possible girdle (Fig. 2) and two fragments of hair nets (Fig. 3). The tiny pouch (100 × 95 mm) is sewn from a rectangular piece of tabby silk fabric folded and stitched together along the lower hem and side edge. On the lower edge of the item three red tassels have been attached, but only one is fully preserved. The handle is a strip of the same fabric sewn onto the upper edge of the pouch. Similar pouches of cut and adornment have been found in London from late 14th century deposits (Crowfoot et al. 2006, pl. 16, fig. 84).

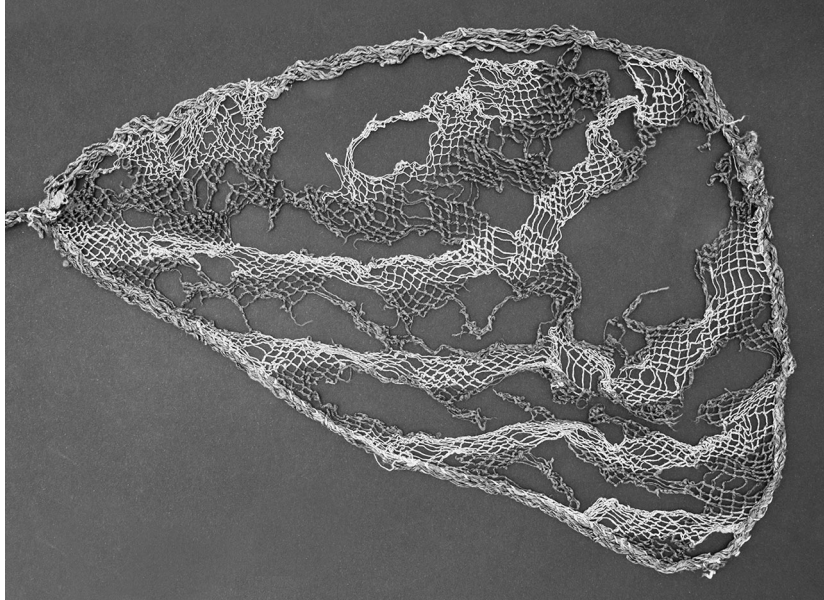


**Fig. 1.** Pouch found in pit RÜÜTLI (TM A-92: 356). Photo by Jaana Ratas.



**Fig. 2.** Fragment of a putative girdle found in pit 11ÜLIK6 (TM A-45). Photo by Jaana Ratas.

The fragment of a girdle (422 × 41 mm) came from a 16th century deposit and is woven of S/z z yarns in a 2/1 chevron twill with open texture. The warp is thicker (0.6 mm) and has less twist than weft yarns; latter are grouped in 3s (Fig. 2). The selvages are marked with two reddish warp threads. A close parallel that dates to the 15th century has been discovered in a cesspit in Lübeck (Jaacks 1993, 296 ff., Abb. 1, Tafeln 21–22). Leather and the remains of plaques were found with the latter, thus Gisela Jaacks (*ibid.*) has interpreted it as an overlong



**Fig. 3.** Hair net found in pit 11ÜLIK (TM A-45). Photo by Kristel Roog.

silk girdle initially attached to the leather belt. The same author (*ibid.*, 298) has suggested a French origin (e.g. Paris) of a Lübeck girdle linking the loose weave with known *bisette* from written sources.

The remains of two knotted mesh hairnets have been found in Tartu. The first item (15th century) is made of S/zz yarns: one light (0.2 mm) and the other dark brown (0.4 mm) that results in diagonal bands (Fig. 3). The net is edged with a loosely plaited cord of four paired dark brown yarns (S/zz). The mesh squares are of various sizes (1.6 mm and 2 mm) that form a rhomboid pattern. Another example is a small fragment of a mesh (with mesh square measuring 3 mm) made of lightly plied yarns. Hairnets of a similar design are known from London (4 pieces), Amsterdam (1), Lübeck (2) and Schleswig (1), and are dated from the end of the 13th (London and Schleswig) to the 17th century (Lübeck) (Vons-Comis 1982, 154; Tidow 1992, 249; Crowfoot et al. 2006, 145 ff.; Müller 2008, 364). These nets were at least partly produced on the spot from imported silk yarn (Crowfoot et al. 2006, 145 ff.). The two copper alloy netting needles found in medieval deposits from the former market place – currently Tartu's Town Hall Square (Fig. 4; TM A-26: 106; 463) – support this hypothesis.



**Fig. 4.** Netting needle found during Tartu Town Hall Square excavation (TM A-26: 463). Photo by Jaana Ratas.



*Brocaded bands and fabrics*

The costliest pieces are those brocaded bands and fabrics adorned with metal threads. During the 12th–13th century especially, the usage of metal threads in textiles to emphasise details of pattern increased (Crowfoot et al. 2006, 86 f.). The price of these precious items depended on the amount and type of metal thread (Monnas 2008, 26). The main type of metal thread used in late medieval production centres in Southern Europe was ‘spun’ thread (*filé*). This consists of a strip of metal (mainly silver, guilt silver or gold) or metal coated leather/gut membrane wound around a fibrous core, usually of silk or linen; the spin direction of the metal strip was usually S (Spies 2000, 60 f., 66; Monnas 2008, 299). All but one (which has a Z direction) metal thread from the Tartu finds belong to this category and had mostly been wrapped around a silk core. These metal strips consist of guilt-silver or silver alloy containing some gold – no pure gold strips have (yet) been found in Tartu (Table 2). Spun guilt-silver and silver were cheaper than pure gold thread and therefore popular among weavers (Spies 2000, 61).

Only three pieces of brocaded fabric have been found in Tartu’s medieval cesspits. One small piece of lampas silk (14ÜLIK: S) dated to the early modern era, has been woven with a pattern bound in tabby on a twill ground (Fig. 5; Table 2: 2). In this case the metal thread was spun with a Z direction and the fragment consists of an organic substrate coated with silver and wrapped around a plant-fibre – most likely linen – core that has totally disintegrated. This kind of metal thread was for example used in Lucca (Monnas 2008, 299). In the preserved fragment the metal thread forms a continuous pattern weft across the entire width of the piece, but it is impossible to say whether this was the case for the entire width of the whole cloth or whether it was just a pattern detail. During the 14th century the most expensive silks were cloths woven with continuous pattern

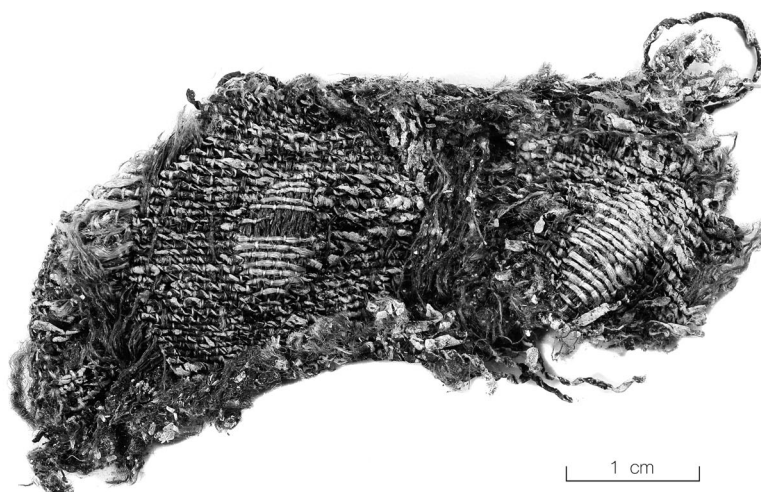
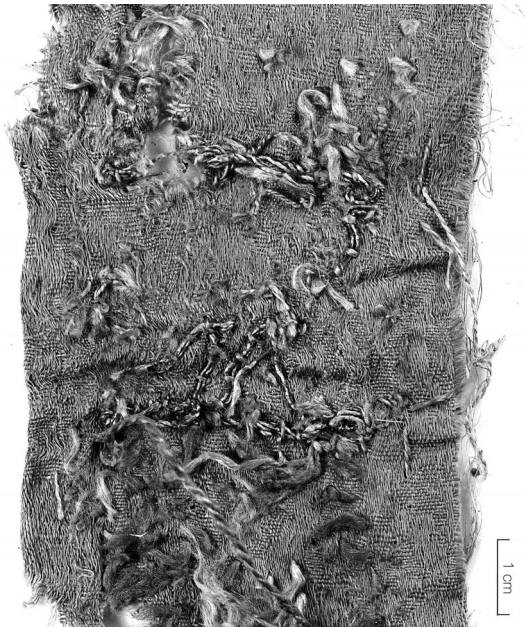


Fig. 5. Brocaded silk lampas found in pit 14ÜLIK: S (TM A-133: 4367: 1). Photo by Jaana Ratas.

wefts of gold (Monnas 2008, 26, 300). In another cesspit from the same site (14ÜLIK: N) a reddish silk lampas weave with a tabby pattern in a 1/4 satin ground or vice versa<sup>2</sup> and embroidered with silk and metal threads was discovered (Fig. 6; Table 2: 1). These textiles represent the highest quality and price range among the silk items found in Tartu and may indicate that some inhabitants of the area were wealthy and of high status.

The third example is a very simple 175 mm wide thin 2/1 twill fabric with two bands (ca 13 mm wide) formed by weft of metal thread (Table 2: 3). The metal is extremely badly preserved and the remains are visible only under a microscope, but the S-direction of the metal band wound around the silk core can clearly be seen. Thin, almost transparent fabrics may indicate usage as a veil or kerchief. The earliest sumptuary laws (e.g. 15th century Tallinn) prohibited the wearing of a *guldene doke* (golden kerchief; Hansen 1894, 18), although it is unclear if ‘golden’ meant ‘brocaded’.

Tiny fragments of bands that adorned the funeral dress of the dead have been found in graves inside Tartu Cathedral<sup>3</sup>. Two bands were made by tablet-weaving with threading of all four holes in each tablet and oriented tablets alternatingly in S- and Z-directions. The tablets were turned continuously in the same direction (Table 2: 5, 6). The metal thread usually runs in a weft system. In one tabby band, however, the metal threads constitute supplementary warp yarns that run over and under the 5–8 weft threads in three groups (Fig. 7; Table 2: 4). Finding



**Fig. 6.** Embroidery with metal thread; fragment of silk lampas found in pit 14ÜLIK: N (TM A-133: 4320). Photo by Jaana Ratas.

<sup>2</sup> Affirmed by Frances Pritchard (The University of Manchester, the Withworth).

<sup>3</sup> TM A-172: 231a; A-207: 70–74; 119: A4/5, 101.



**Fig. 7.** Silk tabby band with a pattern warp of metal thread found in a grave inside Tartu Cathedral (TM A-172: 231a). Photo by Riina Rammo.

brocaded bands in the Cathedral's graves is not unusual, because being buried in the main church of a town was reserved for the elite.

### *Simple fabrics*

Only one fragment of a thick and heavy reddish fabric woven in simple compound twill (HTG1) has been found. Seven cloth pieces are lightweight tabbies mostly woven from single yarns that lack an appreciable twist – only in some cases can a slight Z twist be seen. The density varies between 24–50 threads per centimetre and the diameter of yarns up to 0.4 mm. Similar finds are relatively numerous in other medieval and early modern Northern European cities (Tidow 1992, 244 f.; Wincott Heckett 2005, 110; Crowfoot et al. 2006, 89 ff.). The bulk of production centred upon such plain and relatively narrow fabrics, which were produced in many areas. For the Northern European market, towns in Italy and Spain – for example Lucca, Bologna, Venice, and Toledo – were the main producers of such fabrics during the historical period under study (Endrei 1988, 245; Muthesius 2003, 331 ff.; Spufford 2006, 248; Monnas 2008, 4).

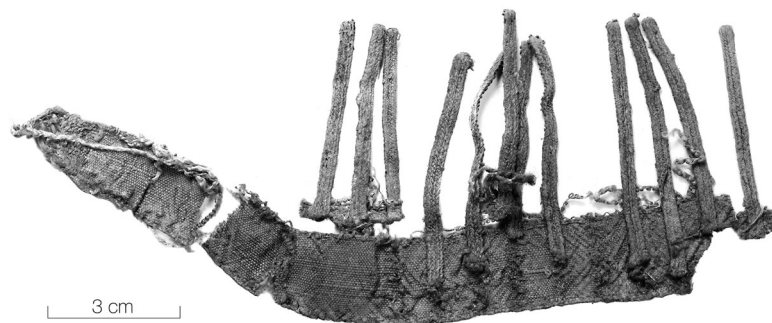
Six of the Tartu tabbies are stained golden-brown, which for silk fabrics is often indicative of undyed cloth (Crowfoot et al. 2006, 93). Simple weaves and an absence of dyestuffs kept the cost of textiles low (Monnas 2008, 24). Two fragments – probably from one cloth (LOSS2) – are transparent and most likely used as a veil or kerchief. On the preserved selvedge the empty loops of weft yarns can be seen. Maybe the selvedge was initially marked by plant fibre cords,

which is occasionally mentioned in the regulations of 14th century Italian centres (Muthesius 2003, 347). The other five fragments originate from denser tabby-woven fabrics, both balanced and with a slight repp character, which were often used for linings and facings of woollen garments (Crowfoot et al. 2006, 90 ff.). All finds are strips with edges that have clearly been cut. Furthermore, this characteristic is illustrated by a fragment of a garment found in Tartu that has a reddish woollen neckline and narrow silk facing on the inner edge. Silk ribbon was fixed to the edge while finishing the neckline with a narrow tablet-woven braid (Crowfoot et al. 2006, fig. 134; Rast-Eicher & Tidow 2011, 320, Abb. 57; Rammo 2012, fig. 9).

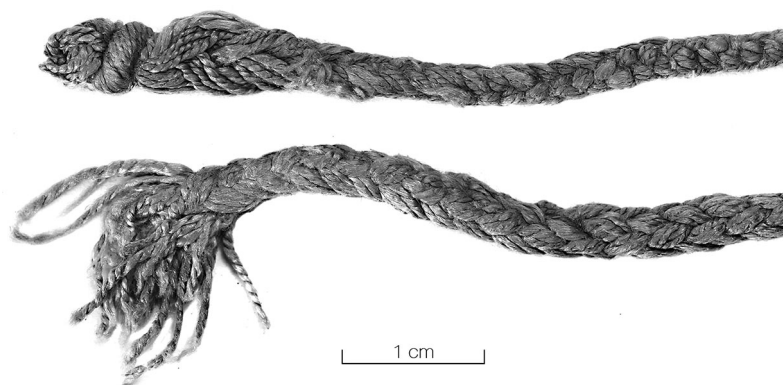
Another relatively dense and balanced tabby fragment bears clear traces of its earlier usage as the facing or border of a clothing item (Fig. 8). A strip of pinkish tabby cloth that narrows at one end shows an imprint of a geometrical pattern, caused, for instance, by a brocaded band firmly lying against it during the past. On this cloth, strips of tablet-woven bands were sewn that currently hang loosely as fringes. Traces of sewing thread on one side of these small bands indicate that they were once attached to another fabric that totally disintegrated in the cesspit. Quite similar decorative silk bands sewn onto a piece of woollen cloth faced with tabby silk have been discovered in Lübeck (Tidow 1992, 246, Tafel 48: 2).

#### *Narrow wares*

Various narrow bands have been found. These are mostly simple tabby-woven ribbons. Cesspits 14ÜLIK: Q and KÜÜTRI respectively contained the remains of two and one tabby warp-faced ribbons woven from a two-ply warp with a single weft yarn. Two tabby ribbons were folded along the centre and bear traces of stitching that indicate they were used as trimmings. Only one band (14ÜLIK: Q) was made by tablet weaving. In addition, the KÜÜTRI cesspit contained fragments of two multi-coloured and warp-patterned silk bands (Fig. 9).



**Fig. 8.** Reddish tabby fabric with hanging bands – probably originating from the edge of a garment – found in KÜÜTRI pit (TM A-162: 160). Photo by Jaana Ratas.



**Fig. 9.** Fingerloop braid with a starting point found in pit LOSS2 (TM A-169). Photo by Jaana Ratas.

One simple fingerloop braid with starting point was found in LOSS1 (Fig. 8; Tidow 1978, Tafel 53; Crowfoot et al. 2006, 138 ff.; for the technique see Nutz 2014, figs 4–5). This piece is a round lace of five loops braided with – a probably undyed – S-plyed yarn. Each loop is comprised of 3–4 threads. Simpler braids/cords have been found in 14ÜLIK: S, LOSS2 and 15ÜLIK1b; these cases consist of multiple undyed plied yarns (2–4, S/zz) that were twined together loosely.

### *Silk yarn*

Silk was used as sewing thread in 25 cases (8.5% of all finds with sewing traces found in Tartu). Silk thread was used on woollen cloth for securing fashionable buttons (3), buttonholes (4) and decorative top-stitching. In all but two cases the silk yarn is plied (mostly S/ii, but also S/zz). Fragments of silk yarn similar to those used for sewing have been found in the cesspits 15ÜLIK1b and LOSS2; all but one tiny blackish fragment are golden-brown and plied. According to the evidence from Tartu, silk thread was usually reserved for reddish broadcloth, which was the best quality woollen fabric unearthed during the archaeological excavations. The fine finishing techniques applied to these garments are an indication of skilled labour, i.e. it was probably carried out by a professional tailor or seamstress (Rammo 2012, 140 f.). These fragments that show a high level of sewing technique are comparable to similar finds from European cities such as London and Prague (Crowfoot et al. 2006, 150–198; Kohout & Březinová 2015, fig. 32.4). The sewing was clearly done by local tailors or seamstresses using imported yarns.

Silk yarn was also used in patterning wool fabrics during the weaving process. In Tartu, 86 fragments of tabbies with colourful weft-faced bands have been recorded (Rammo 2015). These textiles – known from written sources as *ray*, *drap rayé* or *strijptelaken* – were produced in Western European textile centres and traded all over Europe (e.g. Crowfoot et al. 2006, 52 ff.; Dahl 2009). In five cases the silk yarn is integrated into a more elaborate patterning consisting of multi-coloured bands (Pritchard 2010, 133, fig. 2; Kohout & Březinová 2015, 339, fig. 32.9; Rammo 2015, 183, fig. 11.5).

### **Silk in medieval Tartu: concluding remarks**

On the basis of the information, silk was the most luxurious fabric available in medieval Tartu (Rammo 2012, 138 f.). Nevertheless, nothing extraordinary has been found during archaeological excavations. Apart from scraps of two lampas-woven silks, the fragments discovered are relatively plain, belonging to the lowest grades of silk products available. The most widespread use of silk in Europe was for the making of narrow wares: girdles, braids, ribbons, fringes and embroidering (Monnas 2008, 4). This is clearly seen in Tartu on the basis of both written sources and archaeological finds. The majority of archaeological finds are strips, ribbons and bands, which indicates usage for trimmings and linings. Other finds originate from fine accessories: a pouch, a girdle, a veil and the fragments of two hairnets. The sumptuary laws of Tallinn and Riga also foremost mention various accessories made of silk: sleeves, pouches, headscarves, bonnets, veils, stockings, and collars.

Who used silk in medieval Tartu, to whom was it affordable? The 1524 sumptuary laws in Tallinn foremost restricted the wearing of garments made of silk (Pabst 1857, 202 ff.). In 16th century Riga (1502, 1598) even embroidery and garment edgings made of silk were limited to the highest rank of the town's burghers, for example aldermen and honourable members of the merchants' guild (Hansen 1894, 22 f.). According to historians, sumptuary regulations had little effect on a town's community as a whole – even though in theory they were supposed to apply to everybody who lived there – because most people could not afford such 'prohibited' luxurious clothing anyway (Põltsam 2002, 41; Pajur 2014, 58).

Nevertheless, on the basis of archaeological finds it seems that the usage of silk was more widely spread than just to a town's highest elite. For instance, according to Gitte Hansen (2015, 101), shoes with silk embroideries were relatively widely spread in 12th century Bergen and available to craftspeople of middle ranks (ibid., 94). First, it is noteworthy that the silk scraps were found in several different areas of medieval Tartu. Among 13 sites where textiles have been unearthed, eight revealed some silk. Second, these lavatories belonged

to households of permanent residents whose occupations varied from artisans to merchants. The overall picture on the basis of analysis of pottery shards from the cesspits is consistent with what is expected from an urban household in the Eastern Baltic (Haak & Russow 2012, 158); except for the site at 14 Ülikooli Street where slightly exceptional finds indicate that relatively wealthy inhabitants lived there. The brocaded fabrics from pits 14ÜLIK: N and 14ÜLIK: S are probably most valuable among the Tartu textiles found. In addition, the writing tablet found from pit 14ÜLIK: Q possibly indicates the activities of a merchant (or another person involved in scribing activities) (Haak & Russow 2012, 164). Another problem when comparing written sources with archaeological evidence is that the 16th century sumptuary regulations of Tallinn and Riga deal mainly with women's dress (Hansen 1894, 18 ff.). It is almost impossible to distinguish whether the archaeological fragments originate from male or female clothing. Thus, perhaps the finest items adorned with silk are from socially accepted men's garments.

Discussing medieval silk usage does not mean concentrating only on a town's elite. Although silk fragments in Tartu are relatively rare, the finds are significant. As part of a full costume, the decorative silk seams and linings described above were not particularly remarkable and maybe not even visible at first sight. Even in modest forms silk played a significant role in social display and luxury consumption, carrying social messages at least among the upper and middle rank of a town's inhabitants in late medieval urban milieus. The clothing items finished with silk indicate that a person could buy fine materials and pay for skilled tailoring – conspicuous consumers with knowledge of fashion and self-consciousness. A person's costume made their social position visible to everyone else. The need to repeat sumptuary laws several times may indicate that the social order was often challenged by people who over-dressed to make claim to a higher social status through their external appearance (Pajur 2014, 14). It is possible that people wealthy enough to buy silk products were ready to ignore sumptuary laws and pay any fines given.

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### Riina Rammo

## SIID KUI LUKSUS KESK- JA VARAUUSAEGSES TARTUS

### *Resüme*

Artiklis on antud ülevaade Tartu kesk- ja uusajaga dateeritud jäätmekastidest pärit siidileidudest. Käsitletaval perioodil oli siid Euroopas luksuskaubaks. Siidi toodeti väga erinevas kvaliteedi- ja hinnaklassis. Kahtlemata kuulusid kõige uhkemad siidist esemed vaid kroonitud peade ja aristokraatide garderoobi, ent lihtsamaid kangaid ning paelu said endale lubada ka linnaelanikud. Tartu arheoloogilised leiud näitavad, milline siid oli ühe Liivimaa linna elanikele kättesaadav ja kuidas seda rõivastuses kasutati. Milline sotsiaalne tähendus oli siidil linnaelanike tarbimisharjumustes?

Eesti kõige varasemad siidileiud (katked brokaatpaeltest ja ühest kangast) pärinevad Lõhavere linnamäelt ning on dateeritud 13. sajandi algusega. Arvukamalt on siidist katkeid saadud alates keskajast, mil tänu hansakaupmeestele toimus Lääne-Euroopaga elav tekstiilikaubandus. Üks Eesti suurimaid arheoloogiliste tekstiilide kogusid pärineb Tartu kesk- ja uusaegsetest jäätmekastidest. Jäätmekastide keskkond on sobiv loomset päritolu tekstiilide – nii villa kui ka siidi – säilimiseks, samas kui taimsest kiust kangad (näiteks linane) hävivad pea täielikult. Tartu kastidest olen uurinud kokku 3484 tekstiilikatket, millest 99,3% on villased. Siidi osakaal on 0,6% ja linasel 0,1%. Artikli aluseks on siidileiud 13 jäätmekastist, mis paiknevad kaheksas leiukohas (tabel 1). Siidi on tuvastatud kokku 62 korral. Neist 4 juhul on selgelt tegemist mõnest aksessuaarist pärit katkega ja 1 juhul rõivaeseme servakaunistusega. 7 tükki on kangastest, 3 brokaadist, 13 paeltest ja nõöridest ning 4 siidniidist. Lisaks on 25 korral kasutatud siidniiti rõivaste õmblemisel ja 5 korral on seda kootud kaunistuseks villasesse kangasse. Uurimistöös kasutasin abivahendina mikroskoobe (Nikon Eclipse S200 ja Olympus BX51) ning brokaadi metallniitide koostise määramiseks röntgenfluoretsentsspektromeetrit (tabel 2).

Kõige varasemad Tartu leiud pärinevad 14. sajandist. Enamik Tartu katketest on 15.–16. sajandiga dateeritud jäätmekastidest. Sellest perioodist alates muutus siid tänu suurenenud tootmisele Lõuna-Euroopas kättesaadavaks varasemast

laiemale tarbijaskonnale. Lõuna-Euroopa linnadest oli pärit ilmselt ka suur osa Tartus kasutatud siidist, sest sealset toodangut vahendasid Põhja-Euroopasse hansakaupmehed. Tartu jäätmekastidest leitud kangad, ribad ja paelad on suures osas labase koega ning värvimata, mis on odavuse tunnuseks. Tükkide väike suurus ja kuju viitavad sellele, et neid kasutati tõenäoliselt villaste rõivaste kaunistamiseks (joon 8). Lisaks siidist kantidele ääristati rõivaid siidniidist tikandite ja õmblustega. Siidilustustega rõivakatked on enamikus punakast kalevist, mis kindlasti ei kuulunud kõige odavamate riidesortide hulka. Lisaks rõivakaunistustele ja detailidele kasutati siidist valmistatud aksessuaare. Tartust on leitud üks tutti-dega kaunistatud kukkur (joon 1), vöökatke (joon 2) ja kaks fragmenti juukse-võrkudest (joon 3–4). Mitmed õhukesed läbipaistvad siidkangajäänused võivad pärineda rätikutest ja peakatetest. Kõige hinnalisemad Tartu siidikatke hulgas on brokaadist, mida on jäätmekastidest teada kolm (joon 5–6). Brokaatpaelte jäänuseid on saadud ka Toomkirikus paiknenud matustest (joon 7). On tähelepanuväärne, et kaks brokaatkangakatket pärinevad Ülikooli 14 krundil asunud jäätmekastidest, mis võib viidata seal elanud keskmisest jõukamatele elanikele. Rõivaesemete ääristamiseks kasutati ilmselt ka paelu, mille hulgas on nii lihtsaid labaseid, kõladega kootuid kui ka aasadest põimituid (joon 9).

Ehkki Tartu vähesed siidileiud on näited pigem tagasihoidlikust ja odavast siidist, olid need linnaelanike jaoks luksuseks. Siidi toodi siia suhteliselt väikestes kogustes ja teiste kangasortidega võrreldes oli see kallis. Peamiselt kasutati siidi rõivaste kaunistamiseks ja aksessuaaride valmistamiseks. Töös kasutatud 16. sajandi Tallinna, Riia ja Kuramaa luksusmäärustes oli tavaks keelata siidist rõivaste kandmine. Kohati oli piiratud ka siidist kantide ja tikandite kasutamine rõivastel. Siidi tarbimist Liivimaa kesk- ja varauusaegsetes linnades iseloomustasid sotsiaalsed piirangud ning võimalus oma valikute kaudu sotsiaalseid sõnumeid edastada, sest see näitas staatust ja maitset.